



EUROPEAN COMMISSION  
DIRECTORATE-GENERAL FOR ENERGY  
DIRECTORATE D - Nuclear Safety and Fuel Cycle  
**Radiation Protection**

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## **Main Conclusions of the Commission's Article 35 verification**

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# **DOEL NUCLEAR POWER STATION**

## **and national network of environmental radiological monitoring Belgium**

**Date:** 18 to 22 June 2012

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## INTRODUCTION

Article 35 of the Euratom Treaty requires that each Member State shall establish facilities necessary to carry out continuous monitoring of the levels of radioactivity in air, water and soil and to ensure compliance with the basic safety standards <sup>(1)</sup>.

Article 35 also gives the European Commission (EC) the right of access to such facilities in order that it may verify their operation and efficiency.

For the EC, the Directorate-General for Energy (DG ENER) and in particular its Radiation Protection Unit (at the time of the visit ENER.D.4, now ENER.D.3) is responsible for undertaking these verifications.

The main purpose of verifications performed under Article 35 of the Euratom Treaty is to provide an independent assessment of the adequacy of monitoring facilities for:

- Liquid and airborne discharges of radioactivity into the environment by a site (and control thereof).
- Levels of environmental radioactivity at the site perimeter and in the marine, terrestrial and aquatic environment around the site, for all relevant pathways.
- Levels of environmental radioactivity on the territory of the Member State.

For the purpose of such a review, a verification team from DG ENER visited Doel NPP from 18 to 22 June 2012. The visit to Doel NPP also included meetings with the Belgian competent authority, the Federal Agency for Nuclear Control (FANC; *Federaal Agentschap voor Nucleaire Controle*; *Agence Fédérale de Contrôle Nucléaire*, AFCN), the Belgian Technical Support Organization (Bel V), representatives of the Doel Nuclear Power Plant and of the Belgian Nuclear Research Centre (SCK•CKN, *StudieCentrum voor Kernenergie - Centre d'Etude de l'Energie Nucléaire*).

The present document gives an overview of the main conclusions by the verification team concerning relevant aspects of the environmental surveillance at and around the Doel NPP site and corresponding recommendations. More detailed information concerning the verification is available at the technical report of the verification.

## MAIN CONCLUSIONS

All verifications that had been planned by the verification team were completed successfully. In this regard, the information supplied in advance of the visit, as well as the additional documentation received during and after the verification, was useful.

- (1) The verification activities that were performed demonstrated that the facilities necessary to carry out continuous monitoring of levels of radioactivity in the air, water and soil around the site of Doel NPP as well as on the territory of Belgium in the vicinity of the site are adequate. The Commission could verify the operation and efficacy of a representative part of these facilities.
- (2) A few topical recommendations and suggestions are formulated. These aim at improving some aspects of discharge monitoring from, and environmental surveillance around the Doel NPP site and

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<sup>1</sup> Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation (OJ L-159 of 29/06/1996)

the national monitoring system. They do not discredit the fact that environmental monitoring around the NPP site as well as the verified parts of the national monitoring system for environmental radioactivity are in conformity with the provisions laid down under Article 35 of the Euratom Treaty.

- (3) The detailed verification findings and ensuing recommendations are compiled in the 'Technical Report' that is addressed to the Belgian competent authorities through the Belgian Permanent Representative to the European Union.
- (4) The competent Commission services would ask to be informed by the Belgian authorities about any significant changes in the set-up of the monitoring systems and – in particular – about experiences with using front-of-the-art monitoring equipment such as LaBr<sub>3</sub> detectors.
- (5) Finally, the verification team acknowledges the excellent co-operation it received from all persons involved in the activities it performed.

C. Gitzinger

Team Leader